

Patent claims

1. A fastening device, having a fastening element, for components to be arranged in a fuel tank of a motor vehicle, characterized in that the fastening element (7 - 9) has a head part (10, 17, 18) arranged on the base part (1) and has a head part (11, 19, 20) arranged on the component, and in that the head part (11, 19, 20) of the component and the head part (10, 17, 18) of the base part (1) can be connected to one another in a non-positive and positive manner.
2. The fastening device as claimed in claim 1, characterized in that at least one of the head parts of the fastening element (7 - 9) is of sleeve-shaped design.
3. The fastening device as claimed in claim 1 or 2, characterized in that the fastening element (7) has a duct (12) running continuously through the head parts (10, 11) on the component and on the base part (1) and in that the head parts (10, 11) of the component and base part (1) are sealingly connected.
4. The fastening device as claimed in at least one of the preceding claims, characterized in that the head part (11, 19, 20) on the component or the head part (10, 17, 18) on the base part (1) has circumferential edges (13, 21, 22) facing radially in the direction of the respective other component.

5. The fastening device as claimed in at least one of the preceding claims, characterized in that the circumferential edges (13, 21, 22) have a bevel in their regions facing toward the other component and a shoulder in their regions facing away from the other components.
6. The fastening device as claimed in at least one of the preceding claims, characterized in that one part of the circumferential edges (13) is designed as a fastening region (14) and the other part is designed as a sealing region (15).
7. The fastening device as claimed in at least one of the preceding claims, characterized in that a part of the circumferential edges (13, 21, 22) is designed to be radially rigid.
8. The fastening device as claimed in at least one of the preceding claims, characterized in that a part of the circumferential edges (13, 21, 22) is designed to be radially flexible.
9. The fastening device as claimed in at least one of the preceding claims, characterized in that at least one of the components of the fastening element (7 - 9), in its region facing the respective other component,

is produced from a material which is swellable in conjunction with fuel.

10. The fastening device as claimed in at least one of the preceding claims, characterized in that the head part (10, 17, 18) on the base part (1) or on the component (11) has a circumferential groove (23) for holding a sealing ring (16).
11. The fastening device as claimed in at least one of the preceding claims, characterized in that the components of the fastening element (7 - 9) are produced in one part with the wall of the fuel tank (1) and with the component to be assembled.
12. The fastening device as claimed in at least one of the preceding claims, characterized in that the head part (11, 19, 20) is fastened to the component or the head part (10, 17, 18) is fastened to the wall of the base part (1).
13. The fastening device as claimed in at least one of the preceding claims, characterized in that the base part (1) has lateral support webs (24) on the head part (10, 17, 18) or the head part (11, 19, 20) has lateral support webs (24) on the component.